

CIRCOR					Rev
Mechanical / Chemical / Testing Quality Plan Requirements					1
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<b>Quality Plan No. / Revision</b>	<b>Mechanical/Test QP-06 / Rev 0</b>
<b>Purchase Order No.</b>	<b>Standard Plan- See Purchase Order</b>
<b>Material Specification No. / Revision</b>	<b>Per Supplier's Procedures &amp; the Purchase Order</b>

The following Quality Plans are mandatory and are required to be followed with this Quality Plan:

- ✓ MSF 1.8-10, Welding
- ✓ MSF 1.8-5, Heat Treatment
- ✓ MSF 1.8-7, Nondestructive Examination
- ✓ MSF 1.8-1, Calibration Service Quality Plan Requirements for welding, heat treatment and NDE

\*MSF 1.8-1 only applies to welding, heat treatment and NDE

**Identify Applicability**  
(place an X in the appropriate box)

<input type="checkbox"/>	Required procedures are submitted for review by the applicable CIRCOR API Manufacturing Location Engineering and/or Quality Departments or by a Subject Matter Expert (SME)
<input type="checkbox"/>	Required procedures are reviewed Onsite by competent CIRCOR Supply Chain location personnel
<input type="checkbox"/>	Technical audit
<input type="checkbox"/>	API Specification 6A is applicable
<input type="checkbox"/>	API Specification 6D is applicable

Purchasing agreements shall include the following provisions identified by this Quality Plan.

Only vendors that are in good standing in the Approved Vendors List shall be used. Refer to **MSPM 1.8, Purchasing Control** for other purchasing order requirements that may be required.

Reason for Testing: Click here to enter text. (optional)

*Examples: Positive Material Identification; Material Qualification; Welder Qualification*

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Check As Required	Item Required
<input type="checkbox"/>	<p>Perform the following mechanical tests to the requirements of:</p> <p><input type="checkbox"/> ASTM A370 Standard Test Methods and Definitions for Mechanical Testing for Steel Products (latest edition)</p> <p><input type="checkbox"/> Other Specification Click here to enter text.</p> <p><input type="checkbox"/> Tensile</p> <p><input type="checkbox"/> Yield</p> <p><input type="checkbox"/> Charpy Impact ISO 148-1, <i>Metallic materials — Charpy pendulum impact test — Part 1: Test method (latest edition)</i></p> <p><input type="checkbox"/> Hardness</p> <p><input type="checkbox"/> BHN ASTM E10 Standard Test Method for Brinell Hardness of Metallic Materials (latest edition)</p> <p><input type="checkbox"/> RC ASTM E18, <i>Standard Test Methods for Rockwell Hardness of Metallic Materials (latest edition)</i></p> <p><input type="checkbox"/> Other Click here to enter text.</p>
<input type="checkbox"/>	Chemical Analysis to: Click here to enter text.
<input type="checkbox"/>	Other Requirements: Click here to enter text.

1. The vendor is required to submit to **CIRCOR** for review:
  - a. A copy of the mechanical / chemical testing procedures
  - b. Copies of calibration records for inspection, testing, monitoring and measurement equipment used in the performance of mechanical / chemical testing activities
2. The vendor shall submit any proposed changes mechanical / chemical testing procedure to for **CIRCOR** review prior to using it on **CIRCOR** orders when changes are proposed.
3. The vendor shall provide a Certificate of Conformance(s) to document:
  - a. The vendor's mechanical / chemical testing procedure number and revision level
  - b. Inspection equipment current calibration (traceable to NIST or equivalent national or international standard).
4. Conformance to the requirements stated herein provides sufficient evidence of equipment approval.
5. The vendor shall not subcontract the performance of any mechanical / chemical testing activities to a sub-vendor without **CIRCOR** approval.

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6. The vendor shall notify **CIRCOR** if any portions of the activities covered by this PO are going to be subcontracted.

Quality Plan Required Documentation MECHANICAL CHEMICAL TESTING			
Quality Plan Reference Requirement	What is required?	Circor Review Required	
		Yes	No
1a	Mechanical Chemical Testing Procedure	X	
1b	Calibration records for equipment used in the performance of mechanical chemical testing activities	X	
3	Certificate of Conformance	X	
Attachment I	Including records specified by MSF 2.3.1-1, Supplier Documentation Requirements for this Quality Plan	X	

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CIRCOR Supply Chain Location Approval

*Mike Evans*

2/28/18

Signature

Date

CIRCOR API Manufacturing Site Approval

*Carlos Castillo*

2/28/2018

Signature

Date

CIRCOR API Manufacturing Site Approval

*J. McArthur*

2/28/18

Signature

Date